

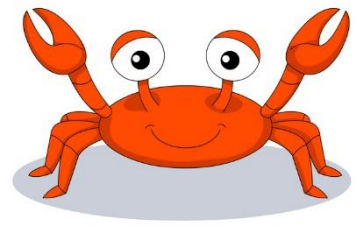


Look What I Found!

*A closer look at the animals in the rock pools and
platform of Dolphin Point*

Nathan Burns

Introduction



Every year, my family and I go on holidays to Dolphin Point on the South Coast. We love exploring the rock platforms and rock pools on the headlands at Dolphin Point. I like looking for all the different living things I can find in each pool.

Dolphin Point



I wanted to learn more about the rock pools and what creatures lived in them by doing a survey.

Aim

I want to find out what sea creatures live in the rock pools of Dolphin Point.



Background Research

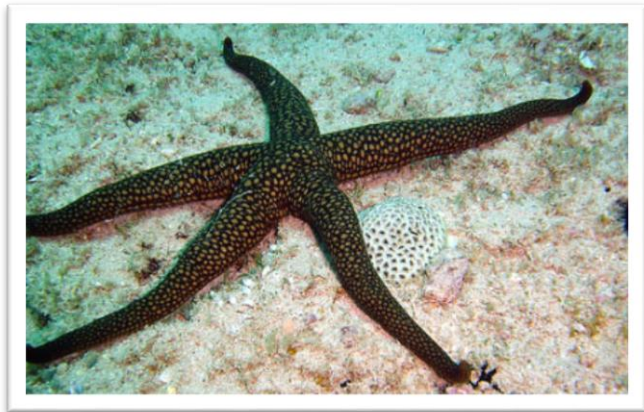


I did some research to find out what sorts of animals I might find in the rock pools. Rock pools are home to a large number of different animals.

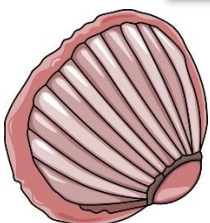
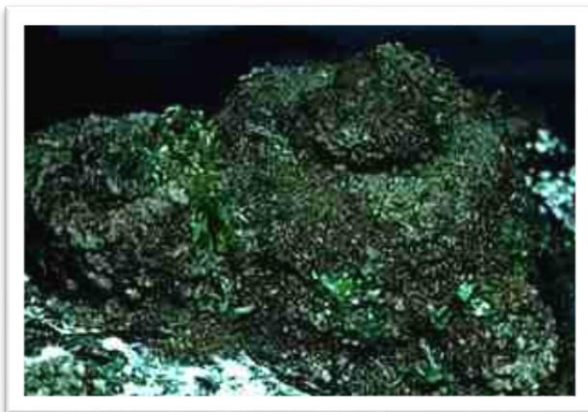
There are animals with shells like limpets, snails and barnacles.



There are animals with legs like crabs and starfish.



There are squishy animals like sea squirts and anemones.

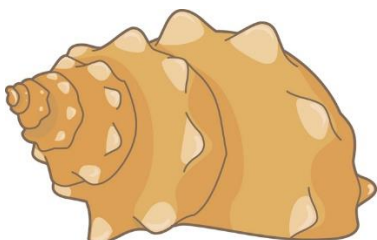




And then there are larger animals like small fish and sea birds.



These are the animals I am likely to see at the rock pools.



Risk Assessment



When doing my survey on the rock platform I had to be careful of a few things.

What is the danger?	How will I protect myself?
The sea is deep and there are big waves	We will stay right away from the water's edge
Sharp shells and rocks	Wear good shoes to protect feet
Rain (it was raining when we went down to the rock pools)	Ponchos to keep us dry
Poisonous animals (like blue bottle jellyfish and blue ring octopus)	If we see them then we leave them alone. Do not touch



*DANGER:
Blue bottle jellyfish*



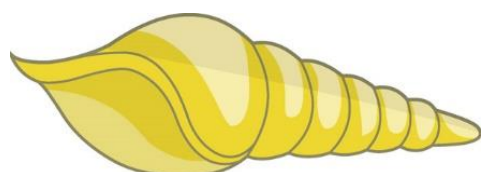
*DANGER:
Blue ring octopus*

When I went to the rock platform I was also with some adult friends who looked after me.

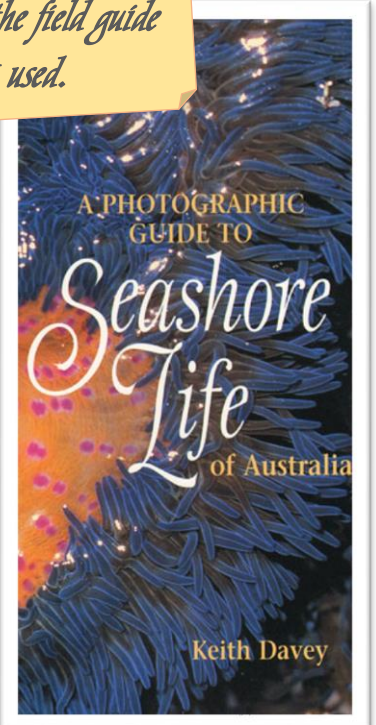
Materials

I used:

- Net
- Buckets
- Camera
- Measuring Tape
- Field guide
- Pencil



*This is the field guide
I used.*



Method



1. Use the measuring tape to measure a square with 10 metre sides on the rock platform. Use rocks to mark out the corners.



Measuring out my first square using a tape measure.

2. Walk back and forth across the square looking for animals
3. When a different animal is found either collect it using a bucket and net (e.g. snails) or take a photograph of it using a camera (e.g. anemones). My sisters helped me.



Collecting shells is fun!



My sisters helped too!

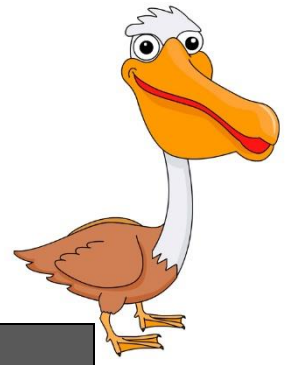
4. Use the field guide to work out what species of animal it is.
5. Record the animal in the log book.
6. Release the animal back into the rock pool or onto the rock platform where it was found.
7. Do this three times in different areas.



Joel helped me identify the animals using a field guide.



Results



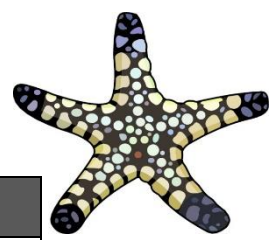
In the 1st Square I found:

Common Name	Scientific Name
Honeycomb barnacle	<i>Chamaesipho tasmanica</i>
Six-plated barnacle	<i>Chthalmus antennatus</i>
Rosette barnacle	<i>Tetraclitella purpurascens</i>
Common mud oyster	<i>Ostrea angasi</i>
Black nerite	<i>Nerita atramentosa</i>
Zebra top shell	<i>Austrocochlea porcata</i>
Striped-mouth conniwink	<i>Bembicium nanum</i>
Spotted cominella	<i>Cominella lineolata</i>
Variegated limpet	<i>Cellana tramoserica</i>
Blue australwink	<i>Nodilittorina unifasciata</i>
Tubercled noddiwink	<i>Nodilittorina pyramidalis</i>
Small green seastar	<i>Patriella exigua</i>

In the 2nd Square I found:

Common Name	Scientific Name
Green anemone	<i>Cnidopus verater</i>
Eastern sand anemone	<i>Oulactis muscosa</i>
Black nerite	<i>Nerita atramentosa</i>
Zebra top shell	<i>Austrocochlea porcata</i>
Striped-mouth conniwink	<i>Bembicium nanum</i>
Spotted cominella	<i>Cominella lineolata</i>
Variegated limpet	<i>Cellana tramoserica</i>
Blue australwink	<i>Nodilittorina unifasciata</i>
Mulberry Whelk	<i>Morula marginalba</i>





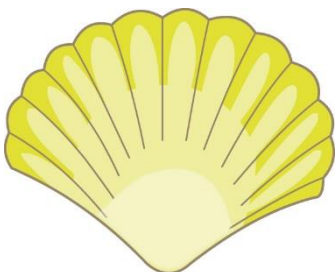
In the 3rd Square I found:

Common Name	Scientific Name
Green anemone	<i>Cnidopus verater</i>
Eastern sand anemone	<i>Oulactis muscosa</i>
Black nerite	<i>Nerita atramentosa</i>
Zebra top shell	<i>Austrocochlea porcata</i>
Striped-mouth conniwink	<i>Bembicium nanum</i>
Variegated limpet	<i>Cellana tramoserica</i>
Blue australwink	<i>Nodilittorina unifasciata</i>
Blunt-tailed sea centipede	<i>Paridotea munda</i>
Goby fish	<i>Gobiidae spp.</i>

We also saw some other animals that were not inside the squares:

Common Name	Scientific Name
Waratah anemone	<i>Actinia tenebrosa</i>
Cunjevoi sea squirt	<i>Pyura stolonifera</i>
Eight-armed seastar	<i>Patriella calcar</i>
Variegated shore crab	<i>Leptograpsus variegatus</i>
Sooty oystercatcher	<i>Haematopus fuliginosus</i>

I wanted to use my results and the pictures I had taken of all the different animals I found in the rock pools and platform to tell other people about what I had found. I decided to make a small booklet for other people to use when they want to know what animals they are looking at when they visit the rock pools and platform at Dolphin Point.





Look What

I Found!

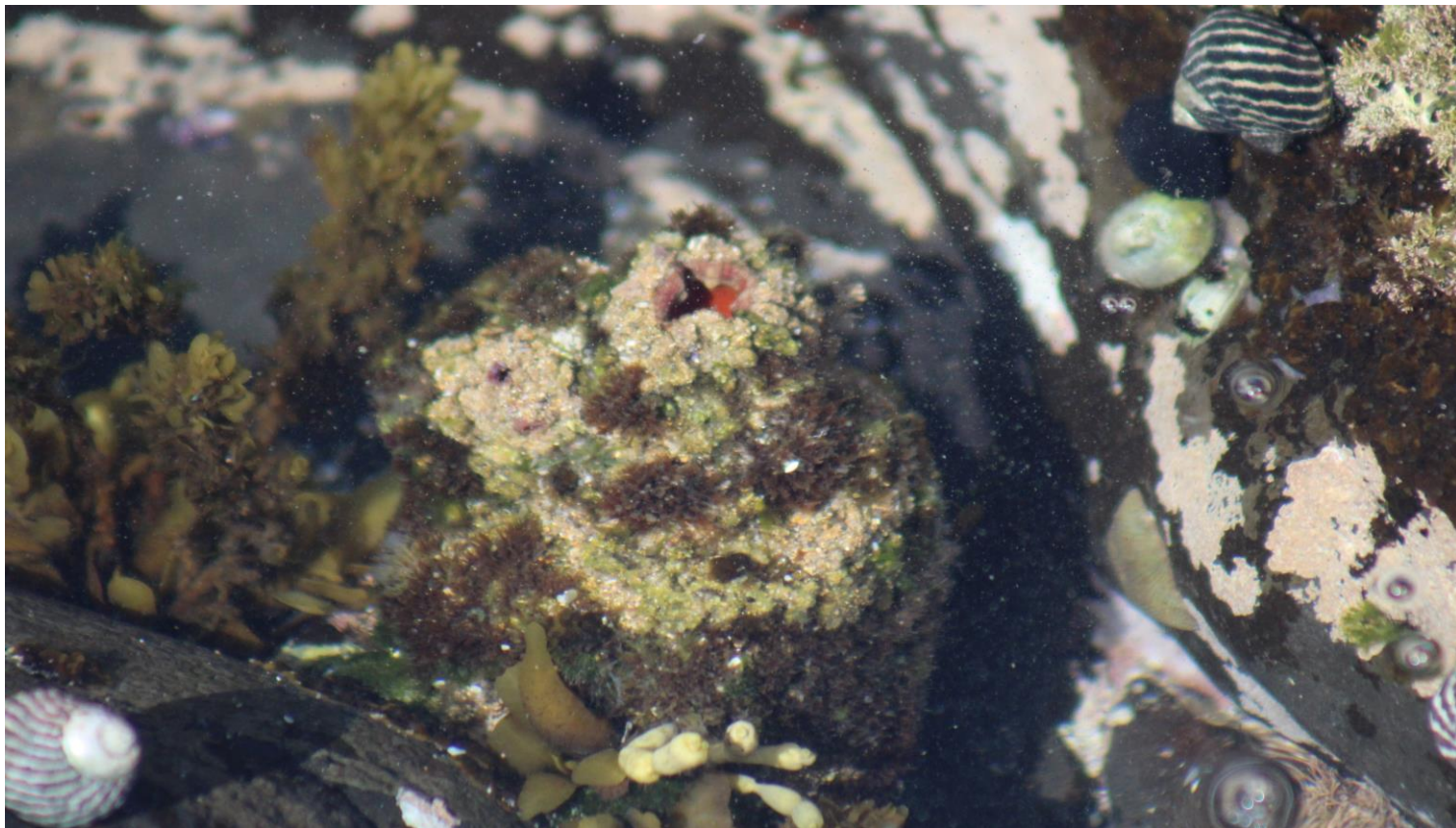
at

Dolphin Point

Rock Pools and Platform

Nathan Burns

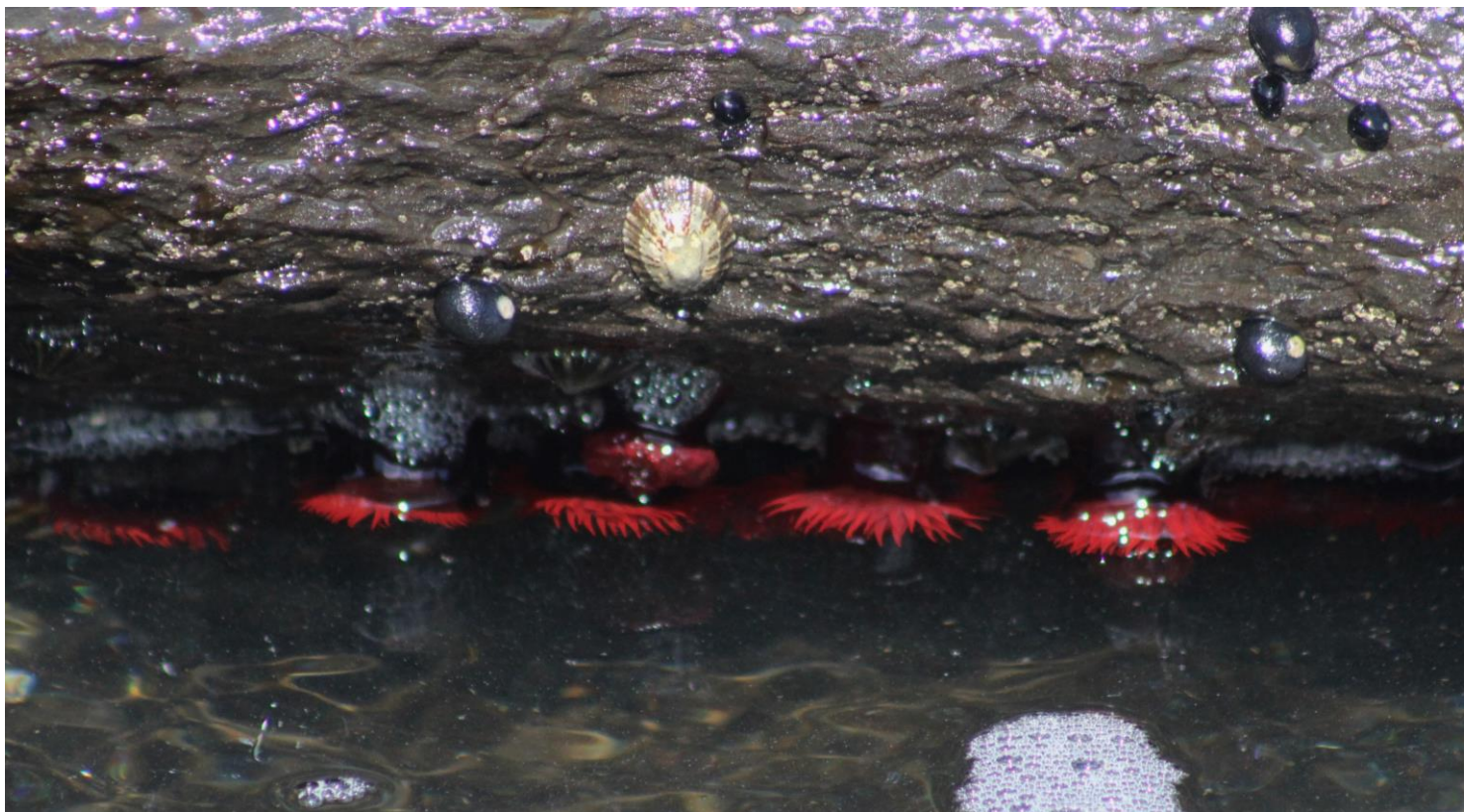
Cunjevoi sea squirt *Pyura stolonifera*



DID YOU KNOW?

Cunjevoi squirt jets of water like a water pistol when squeezed at low tide. This is why they are also called sea squirts.

Waratah Anemone *Actinia tenebrosa*



DID YOU KNOW?

Waratah anemones can move very slowly over the rock towards food or to attack other sea anemones.

Green Anemone *Cnidopus verater*



DID YOU KNOW?

The green anemone is commonly found in deep rock pools and captures small animals with its tentacles.

Eastern Sand Anemone *Oulactis muscosa*



DID YOU KNOW?

The sand anemone gets its name because it collects sand and bits of shell between its tentacles.

Small Green Seastar *Patriella exigua*



DID YOU KNOW?

Small green seastars are often found where brown algae is growing in rock pools.

Eight-armed Seastar *Patriella calcar*



DID YOU KNOW?

The eight-armed seastar eats algae, shellfish and dead animals. It doesn't always have eight arms. Sometimes it has seven or nine.

Common Mud Oyster *Ostrea angasi*



DID YOU KNOW?

Mud oysters are the slowest growing oyster. They take twice as long to reach full size.

Black Nerite *Nerita atramentosa*



DID YOU KNOW?

Black nerite snails have a bony tip on their tongue to scrape algae off the rocks.

Zebra Top Shell *Austrocochlea porcata*



DID YOU KNOW?

The zebra top shell gets its dark stripes from the algae that it scrapes off the rocks.

Striped-mouth Conniwink *Bembicium nanum*



DID YOU KNOW?

The striped-mouth conniwink lays between 100-200 white-coloured eggs in a bean-shaped jelly egg sack.

Blue Australwink *Nodilittorina unifasciata*



DID YOU KNOW?

Blue australwinks move further away from the sea as they get older. So small ones can be found near the sea and big ones furthest away from the sea.

Tubercled Noddiwink *Nodilittorina pyramidalis*



DID YOU KNOW?

The tubercled noddiwink eats algae by scraping it off the rock using its bony tongue. This means it is an herbivore.

Variegated Limpet *Cellana tramoserica*



DID YOU KNOW?

The variegated limpet leaves a chemical trail so that it can always come back 'home' after it has finished eating algae.

Mulberry Whelk *Morula marginalba*



DID YOU KNOW?

The mulberry whelk cuts a small hole in the shell of another snail and then eats it by sucking it up through the hole.

Spotted Cominella *Cominella lineolata*



DID YOU KNOW?

The spotted cominella feeds on other sea snails. This means it is called a carnivore.

Honeycomb Barnacle *Chamaesipho tasmanica*



DID YOU KNOW?

The honeycomb barnacle is both the smallest and most numerous barnacle species found on rock platforms.

Six-plated Barnacle *Chthalmus antennatus*



DID YOU KNOW?

Barnacles eat tiny animals in the water and so they can only feed when it is high tide and they are covered by water.

Rosette Barnacle *Tetraclitella purpurascens*



DID YOU KNOW?

Barnacles are actually a kind of crustacean. This means that they are closely related to crabs, prawns and lobsters.

Blunt-tailed Sea Centipede *Paridotea munda*



Source: <http://www.environment.gov.au/cgi-bin/species-bank>

DID YOU KNOW?

The blunt-tailed sea centipede exactly matches the colour of the seaweed that it lives on.

Variegated Shore Crab *Leptograpsus variegatus*

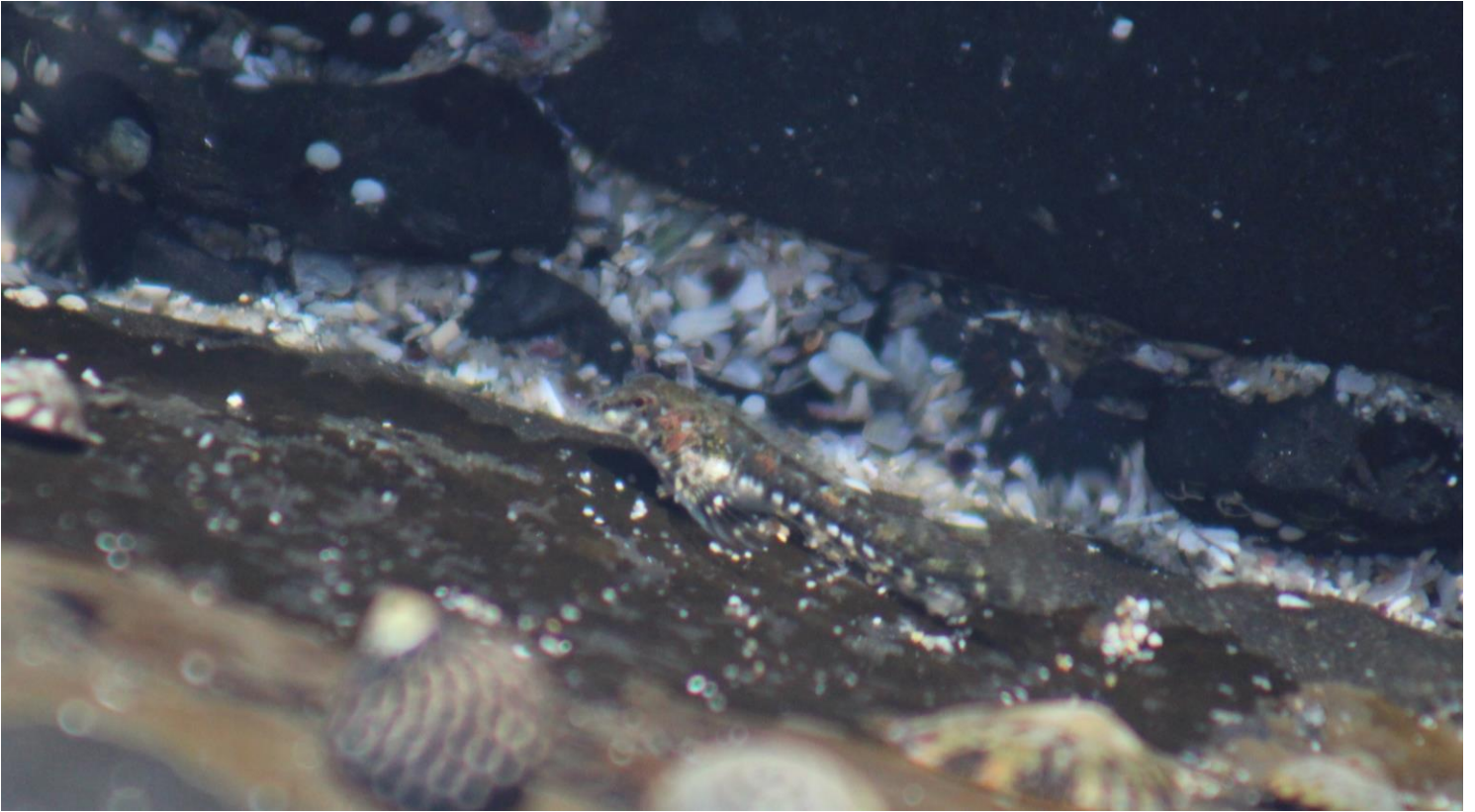


Source: <http://www.flickrriver.com/photos/tags/leptograpsusvariegatus/>

DID YOU KNOW?

The variegated shore crab is very strong and is able to hold onto a rock even when big waves are crashing on it.

Goby fish *Gobiidae spp.*



DID YOU KNOW?

Gobies can live in almost any rock pool on the rock platform, even if they are just puddles.

Sooty Oystercatcher *Haematopus fuliginosus*



DID YOU KNOW?

The sooty oystercatcher eats lots of other animals like starfish, limpets, oysters, worms, crabs and small fish.

Discussion



In my Background Research, I collected information about rock pools and rock platforms to find out what animals I might find during my survey. The research said I should find limpets, snails, barnacles, crabs, starfish, sea squirts, anemones, small fish and sea birds. I want to compare my results with this research.

Did I find ...

Limpets and Snails?

Yes. There were lots of snails and limpets.

Barnacles?

Yes. There were all close together but only in Square 1. Barnacles need shade so they don't dry out. Only Square 1 had lots of rocks that could protect them from the sun and the waves. That is why they were only found here.

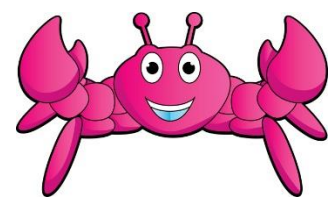
Crabs?

No. There were no crabs in the squares but my sister found one on another part of the rock platform. Crabs need crevices or rocks to hide and the squares were on very flat sections of rock with nowhere for a crab to hide. That is why we couldn't find any.

Starfish?

Yes. I found two different types of starfish.





Sea squirts?

No. Sea squirts were not in our squares because they were too dry and too far away from the sea. Sea squirts live near the water because they need to suck up the water to collect their food.

Anemones?

Yes. We found three types of anemone. But the red anemones were not in our squares and only found close to the sea under the rocks. This is where they like to live. Here they are protected from the waves.

Small fish?

Yes. There were fish but only in the rock pools because fish can't live out of the water.

Sea birds?

Yes. There are usually seagulls but we didn't see any. We did see two sooty oystercatchers and they were walking over the rocks near the water looking for and eating the snails and oysters.

We also found in one of the pictures an animal we had missed. It is called a chiton. It is a funny animal with a strange shell. It is a mollusc, which means it is related to snails and limpets.



This chiton was hiding from us!



Conclusion



I have learned a lot of new things about the animals that live in rock pools and rock platforms.

I learned that there are many different kinds of animals living here. I was also excited to find three different kinds of anemone. Before I thought that there was only one kind.

I have learned that some animals live near the sea and others live far away from the sea.

I have learned that some animals like living in the open but others need shade, water or rocks to hide.



Acknowledgments



I would like to thank some people for helping me with my Science project ...

Ruth

My sister took photos using her waterproof camera!

Emma

Looked after us on the rock platform and took photos for me.

Mum

Helped me with my research and let me use her iPad for taking photos

Isabella and Evangeline

My sisters helped me find all the animals.

Joel

Looked after us on the rock platform and helped me identify the animals we found. He helped me do my logbook and type up my project. He also took photos for me.

Dad

Printed out my photos for my logbook.

I also collected information and pictures from a few different places:

Atlas of Living Australia, *Common mud oyster*, viewed 2 July 2016, <<http://bie.ala.org.au/species/Ostrea+angasi>>

Australian Museum, *Cunjevoi*, viewed 2 July 2016, <australianmuseum.net.au/cunjevoi>

Australian Museum, *Green anemone*, viewed 2 July 2016, <australianmuseum.net.au/green-anemone>

Birds in Backyards, *Silver gull*, viewed 20 April 2016, <<http://www.birdsinbackyards.net/species/Chroicocephalus-novaehollandiae>>

Birds in Backyards, *Sooty oystercatcher*, viewed 20 April 2016, <www.birdsinbackyards.net/species/Haematopus-fuliginosus>

Davey, K 2009, *A photographic guide to seashore life of Australia*, New Holland Publishers.

Dep. of Environment and Heritage Protection (QLD gov.), *Rocky shore*, viewed 20 April 2016, <www.ehp.qld.gov.au/coastal/ecology/marine-habitats/rocky_shore.html#rockyshore_dweller>

Dep. of the Environment (AUS gov.), *Species bank*, viewed 2 July 2016, <<http://www.environment.gov.au/biodiversity/abrs/online-resources/species-bank/records.html>>

Flickrriver, *leptograpusvariegatus*, viewed 3 July 2016, <<http://www.flickrriver.com/photos/tags/leptograpusvariegatus/>>

MESA, *Life on Australian seashores*, viewed 2 July 2016, <www.mesa.edu.au/friends/seashores>

